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09/852,453	05/09/2001	Christoffer S. Weinold	035P0001	5145

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Rodney F. Brown
3365 Baltimore Street
San Diego, CA 92117

EXAMINER

CHEN, ALAN S

ART UNIT	PAPER NUMBER
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2182

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/852,453

Applicant(s)

WEINOLD, CHRISTOFFER S.

Examiner

Alan S. Chen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05/09/2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

AT

DETAILED FINAL ACTION

1. The Declaration filed on 09/15/2004 under 37 CFR 1.131 has been considered but is ineffective to overcome the Chen reference.
2. Applicant is attempting to show conception of invention prior to May 9, 2000, the effective date of Chen, coupled with diligence from May 15, 2000 until May 09, 2001, the effective filing date of the instant application (based on the provisional application).
3. The evidence submitted is insufficient to establish a conception of the invention prior to the effective date of the May 9, 2000 reference. While conception is the mental part of the inventive act, it must be capable of proof, such as by demonstrative evidence or by a complete disclosure to another. Conception is more than a vague idea of how to solve a problem. The requisite means themselves and their interaction must also be comprehended. See *Mergenthaler v. Scudder*, 1897 C.D. 724, 81 O.G. 1417 (D.C. Cir. 1897). The cited evidence for conception of the invention prior to the effective date of the Chen reference does not show evidence that the applicant had possession of the whole of the invention as claimed.

Conception

The affidavit or declaration and exhibits must clearly explain which facts or data applicant is relying on to show completion of his or her invention prior to the particular date. Vague and general statements in broad terms about what the exhibits describe along with a general assertion that the exhibits describe a reduction to practice "amounts essentially to mere pleading, unsupported by proof or a showing of facts" and, thus, does not satisfy the requirements of 37 CFR 1.131(b). In re Borkowski, 505 F.2d 713, 184 USPQ 29 (CCPA 1974). Applicant must give a clear explanation of the exhibits pointing out exactly what facts are established and relied on by applicant. 505 F.2d at 718-19, 184 USPQ at 33. See also In re Harry, 333 F.2d 920, 142 USPQ 164 (CCPA 1964) (Affidavit "asserts that facts exist but does not tell what they are or when they occurred."). See MPEP 715.07 General Requirements

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To establish conception, the declaration states in numbered paragraphs 1-3 that Exhibits A-1, A-2 and B-1 are "recited in support of the conception". This is a vague and general statement which does not even describe in broad terms what the exhibits show. This amounts to mere pleading. This is not a clear explanation. The affidavit fails to recite sufficient facts for the Examiner to determine which of the claim limitations are satisfied by the given evidence. Thus applicant has not met his burden of clearly showing how the submitted evidence supports conception of the invention.

4. The examiner has reviewed the submitted evidence in its entirety and does not find that it would support conception even with a proper affidavit. The evidence showing conception, i.e., A-1, A-2 and B-1 show very broadly the idea behind the applicant's invention, it does not show conception of all of what is claimed. Exhibit A-1 shows the EDK17XXX drawing which appears to be a generic voltage sensor. Exhibit A-2 shows a rough diagram of some of what is claimed, but does not indicate any of the comparison techniques claimed. Exhibit B-1 is somewhat more detailed as to the functionality of the application and does recite comparing the system voltage to the user specified value, it does not disclose other configurations of the computer power supply, e.g., the series configuration with the computer system, variable voltage electrical power converted to voltage regulated power, etc, which the other two figures are deficient as well. The applicant must clearly indicate to the Office how these submitted evidence supports the conception of the invention in the declaration.

As such it appears that Applicant has not shown a conception of invention. These examples are not meant to be comprehensive and exhaustive. Applicant has the burden of establishing conception.

Claim Objections

5. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claim 32 (last claim) been renumbered 33.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1,3-8,1 1-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Chen.

As far as Claim 1 is concerned Chen shows a mobile computing system (i.e. 20) with automatic/automated shutdown (i.e. Figure 2 flowchart steps) in situations where a "mobile office" is realized and thus requires a stable power supply (i.e. column 1 , lines 11-28). A variable supply is shown by the +12V which is coming from the vehicle power supply (i.e. column 1, lines 11-28 or column 2, lines 17-37, wherein the +12V represents vehicular power which does provide a variable voltage around +12V). Mounting in a motor vehicle is seen as via use of the ACC and ignition switch of a vehicle and installation in a vehicle (column 1, lines 14-17). Hence variable voltage is supplied to the mobile computer installed in the car. A system computer is seen as the computer 20, and provides informational data queries and responses (i.e. column 1, lines 10-27 word/data processing), and provides means for creating a system

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shutdown command (i.e. GPIO feedback OFF signal) in response to ACC ON/OFF parameter comparison data. A system interface is seen as portions of the device 10 that are coupled to the +12V and ACC and GND per Figure 1, as such receives the variable voltage at the +12V. A computer power supply (i.e. the filter 12 and relay 13) is positioned in series in between the interface and the computer, as a conversion to a regulated power supply is made by the filter 12, as a filter will regulate, either in an active or passive mode, the input power supply, as a filter by nature will remove undesired components in order to provide regulation to the extent claimed. Means for creating the parameter comparison/charge level data is seen as the microprocessor controller 11, wherein the actual ACC values are compared against threshold and established operating parameters (i.e. ACC ON/OFF) when the controller 11 issues the SIGN to the computer 20, with the means for interrupting the transmission of the filter regulated voltage at the relay 13, in response to the GPIO signal.

As far as claim 3 is concerned, the relay 13 can be considered as being part of the computer power supply operating in conjunction with the filter 12, such that the relay has enabling/disabling functionality via its open and closed states, allowing and disabling power transmission, respectively. The relay is under the control of 20 and 11, in combination, due to the GPIO signal from 20 to 11.

As far as claim 4 is concerned, the controller 11 generates a signal to control relay 13 in response to GPIO from system computer 20.

As far as claim 5 is concerned, please note microprocessor controller 11 which has, by definition, a system interface operating program running on it in order to judge the state of ACC by monitoring ACC and then issuing the SIGN signal.

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As far as claim 6 is concerned, the communication link is seen in Figure 1 as the line connecting 11 to 13, as this is how the relay 13 is controlled by the microprocessor 11.

As far as claim 7 is concerned, the vehicle ignition meets the claimed system power switch, as when the ignition switch is ON or ACC, then it allows for the transmission of unregulated and variable power via +12V to the device 10, and when the ignition switch turns OFF, then the +12V is clearly interrupted to the extent and manner claimed.

As far as claim 8 is concerned, the comparison is carried out by the microprocessor 11, with its operating program addressed above.

As far as claim 11 is concerned, note that column 2, lines 52-68 specifically state that a resident program in 20 operates in conjunction with controller 10 in the parametric comparison data creation and evaluation and that 10 can be integrated into 20, thus allowing for anticipation of the "includes".

As far as claim 12 is concerned, note the above resident program in 20.

As far as claim 13 is concerned, note the discussion of the claims above. The system computer is 20, the interface device is 10 to the extent it interfaces to +12V and ACC and GND, the computer power supply is in series at 12 and 13, with means for creating parameter comparison data in 10 via microprocessor 11 sent to computer 20.

As far as claim 14 is concerned, note microprocessor 11 in device 10.

As far as claims 15 and 16 are concerned, parameter comparison means includes both 11 and 20 per the above.

As far as claims 17 and 31-33 is concerned, note the detailed analysis above, to also include, a system computer 20, a system interface device 10 to be construed to include the actual physical interface to +12V/ACC/GND, a variable vehicle power supply at +12V, a computer power supply 12/13 in series with the interface to +12V/ACC/GND with its conversion to a regulated and stable supply via filtering, with microprocessor controller 11 inside of the device 10 which creates the ACC ON/OFF parameter comparison data comparing the actual state of ACC against ON/OFF conditions, with a processor in 20 running a resident program to create a shutdown via GPIO. Note that ON/OFF conditions at the electrical level boils down to charge levels of the battery. An "ON" condition is construed to be the charge level when the ignition is on, versus an "OFF" condition which is construed to be the charge level when the ignition if off. Chen discloses the mobile device as a computer/palm with applications for word processing, data processing etc. (Column 1, lines 10-20) all of which inherently allows for user query and information data retrieval. In relation to power, it is also inherent where portable devices have a battery indicator, e.g., laptops based on the Window OS, palm OS, etc., give the status of the battery that powers it.

As far as claim 18 is concerned, such encompasses a method anticipated via the analysis above, in that the device/apparatus limitations involve the flowchart steps of Figure 2, along with steps performed to transmit/convert/establish/assign in carrying out the operations described by Chen.

As far as claims 19-25 are concerned, these method steps are also encompassed per the analysis above, noting that an automatic computer shut off includes closing at least one running application on the computer 20, as operating systems behave poorly if the computer is turned off

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without shutting down open applications. Such is done as a result of the detected ACC OFF from device 10. As far as claim 21 is concerned, it is to be noted that the shutdown is initiated by the device 10, which in turn starts the computer 20 shutdown, which involves shutting down open applications, so that the computer and power supply can be safely removed as evidenced by the OFF feedback GPIO signal. For claims 22 and 23, the GPIO results in 11 turning off the relay 13, thereby terminating the power to computer 20. For claim 24, note that Chen includes an internal timer per column 3, lines 37-42 (also per step 102).

As far as claims 26-30 are concerned, the method steps are anticipated via the installation of the computer 20 in the vehicle, transmitting a variable voltage via +12V, converting and regulating per the filtering by filter 12, running applications on computer 20 (i.e. the resident program or the word/data processing), establishing the parameter by monitoring ACC to detect when such is OFF by monitoring the motor vehicle to determine actual ACC values for creating comparison data, and a closing off an application program when the feedback OFF is sent by the GPIO as a shutting down of a computer with an operating system includes at least the closing of an application program. For claims 27-30, a system shutdown command is generated internal to 20 by its resident program in response to the SIGN which indicates a shutdown is to be initiated, requiring that the resident program of 20 start the shut down via a system shutdown command. A running application is thus closed when the ACC goes OFF (i.e., falls below its threshold ON value) in response to SIGN and ultimately, the relay 13 is opened either by the GPIO or the timer, discussed above.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Palatov.

Chen shows the use of a filter, but not a DC-DC converter.

In the same field of using a +12V vehicular source (i.e. column 2, lines 29-50) to power a computer, Palatov teaches that it is old and well known in the art to use a “microbrick” power supply unit comprising a DC-DC converter, when the computer operating voltage is less than that of the +12V supplied by the vehicle (i.e. Figure 4 and DC-DC converter 37, connectors 17/35/31), with attendant benefits of less size and weight.

Therefore it would have been obvious to one having ordinary skill in the art at the time that the invention was made to modify Chen per the teachings of Palatov when it is desired to save weight and space by converting the +12V to a lower voltage via DC-DC

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conversions via an external power supply unit, or a "microbrick".

10. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Gray et al.

Chen lacks A/D converter for real time operating data.

Gray et al. in the same field of multiple microprocessor shutdown, teaches that it is old and well known in the art to monitor, in real time via A/D converters at the master 14 and each slave 16-22, such that each processor will properly enter its powerdown routine upon a detected ignition voltage powerdown level. For example, see the discussion of the routine of Figure 2 resulting in a power supply shutdown at step 52. Such a setup allows for an orderly shutdown, even if various failures in the A/D monitoring is encountered (i.e. columns 5 and 6).

Therefore it would have been obvious to one having ordinary skill in the art at the time that the invention was made to modify Chen per the teachings of Gray et al. in order to allow for the use of A/D conversion to detect and monitor the ignition voltage signal to accurately detect an opening of the ignition switch 26 during engine shutoff, to also include the ability to compensate for various failure modes. Per Gray et al. the teachings applied to Chen would result in monitoring via A/D converters at the device 10 and computer 20, so as per Gray et al., to allow for proper operational shutdown even in various failure modes.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan S. Chen whose telephone number is 571-272-4143. The examiner can normally be reached on M-F 8:30am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici can be reached on (571) 272-4083. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ASC
09/21/2005



KIM HUYNH
PRIMARY EXAMINER
10/3/05